

✓        ✓  
Please add new claim 64 as follows:

64. (New)    A mobile terminal having a receiving circuit according to claim 3.

### REMARKS

The following remarks are responsive to the office action of November 20, 2002.

Reconsideration of the application is requested.

Applicant expresses appreciation to the Examiner for allowing Claims 9-35 and 44-63, and determining that Claims 2-8 and 37-43 contain allowable subject matter and would be allowed if rewritten to include all of the limitations of base Claims 1 and 36, respectively.

The Examiner has rejected Claim 1 and 36 under 35 U.S.C. §112, second paragraph as being indefinite. The Examiner asserts that the following language is unclear:

“based on whether or not *a speech signal or data is contained in the signal* received by the antenna and the radio unit”. Applicant has amended this language to recite the following:


“based on whether or not *a speech signal is contained in the data signal* received by the antenna and the radio unit”. Support for the amendment is found in the present specification, at pages 16, 19, 22, 26, 29 and 30, where these pages disclose that the speech/no-speech signal detector determines whether or not there is a speech signal within a received data signal.

The Examiner has rejected Claims 1 and 36 under 35 U.S.C. §103(a) as being unpatentable over Honda, U.S. Patent No. 5,970,084, in view of Iwakiri, U.S. Patent No. 5,889,815. The Examiner asserts that Honda teaches each limitation of Claims 1 and 36 except for means for controlling a number of finger receivers based on whether speech is contained in data signals that have been inversely diffused. The Examiner asserts that Iwakiri teaches this limitation.

Applicant disagrees with the Examiner and asserts that Neither Honda nor Iwakiri teach or suggest controlling a number of finger receivers based on the number of base stations that are communicating with the receiving unit during a soft handover operation. However, Applicant has amended claims 2-8 to include the limitations of claim 1, amended claims 37-43 to include the limitations of claim 36, and canceled claims 1 and 36. Furthermore, Applicant has added new claim 64. A notice of allowance is respectfully requested.

Attached hereto is a marked up version of the changes made to the claims by the current amendment. The attached page is captioned **"Version with Markings to Show Changes Made."**

Respectfully submitted,



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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

Claims 1 and 36 have been cancelled.

Claims 2-8 and 37-43 have been amended as follows:

2.(Amended) A receiving circuit comprising:

an antenna and a radio unit for receiving a signal transmitted via a radio link;

a plurality of finger receivers for inversely diffusing the signal received by the antenna and the radio unit in association with respective multiple paths;

a synthesizer for synthesizing signals inversely diffused by said finger receivers;

means for controlling a number of finger receivers to operate, among said plurality of finger receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit; and

~~A receiving circuit according to claim 1, further comprising~~ means for controlling a number of finger receives to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on a number of base stations which are communicating with the receiving circuit.

3.(Amended) A receiving circuit comprising:

an antenna and a radio unit for receiving a signal transmitted via a radio link;

a plurality of finger receivers for inversely diffusing the signal received by the antenna and the radio unit in association with respective multiple paths;

a synthesizer for synthesizing signals inversely diffused by said finger receivers;

means for controlling a number of finger receivers to operate, among said

plurality of finger receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit; and

~~A receiving circuit according to claim 1, further comprising~~ means for controlling a number of finger receives to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on whether the receiving circuit is in a soft hand-over mode or not.

4.(Amended) A receiving circuit comprising:

an antenna and a radio unit for receiving a signal transmitted via a radio link;

a plurality of finger receivers for inversely diffusing the signal received by the antenna and the radio unit in association with respective multiple paths;

a synthesizer for synthesizing signals inversely diffused by said finger receivers;

means for controlling a number of finger receivers to operate, among said plurality of finger receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit;

means for controlling a number of finger receivers to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on whether the receiving circuit is in a soft hand-over mode or not; and

~~A receiving circuit according to claim 3, further comprising~~ means for operating as many finger receivers as a number of base stations which are communicating with the receiving circuit if the receiving circuit is in the soft hand-over mode, and operating a minimum number of finger receivers required to detect whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit, if the receiving circuit is not in the soft hand-over mode.

5.(Amended) A receiving circuit comprising:

an antenna and a radio unit for receiving a signal transmitted via a radio link;

a plurality of finger receivers for inversely diffusing the signal received by the antenna and the radio unit in association with respective multiple paths;

a synthesizer for synthesizing signals inversely diffused by said finger receivers;

means for controlling a number of finger receivers to operate, among said plurality of finger receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit; and

~~A receiving circuit according to claim 1, further comprising~~ means for controlling the number of finger receivers to operate by controlling a supply of a clock signal to said plurality of finger receivers.

6.(Amended) A receiving circuit comprising:

an antenna and a radio unit for receiving a signal transmitted via a radio link;

a plurality of finger receivers for inversely diffusing the signal received by the antenna and the radio unit in association with respective multiple paths;

a synthesizer for synthesizing signals inversely diffused by said finger receivers;

means for controlling a number of finger receivers to operate, among said plurality of finger receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit;

means for controlling a number of finger receivers to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on a number of base stations which are communicating with the receiving circuit; and

~~A receiving circuit according to claim 2, further comprising~~ means for controlling the number of finger receivers to operate by controlling a supply of a clock signal to said plurality of finger receivers.

7.(Amended) A receiving circuit comprising:

an antenna and a radio unit for receiving a signal transmitted via a radio link;

a plurality of finger receivers for inversely diffusing the signal received by the antenna and the radio unit in association with respective multiple paths;

a synthesizer for synthesizing signals inversely diffused by said finger receivers;

means for controlling a number of finger receivers to operate, among said plurality of finger receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit;

means for controlling a number of finger receivers to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on whether the receiving circuit is in a soft hand-over mode or not; and

~~A receiving circuit according to claim 3, further comprising~~ means for controlling the number of finger receivers to operate by controlling a supply of a clock signal to said plurality of finger receivers.

8.(Amended) A receiving circuit comprising:

an antenna and a radio unit for receiving a signal transmitted via a radio link;

a plurality of finger receivers for inversely diffusing the signal received by the antenna and the radio unit in association with respective multiple paths;

a synthesizer for synthesizing signals inversely diffused by said finger receivers;  
means for controlling a number of finger receivers to operate, among said  
plurality of finger receivers, based on whether or not a speech signal or data is contained in the  
signal received by the antenna and the radio unit;  
means for controlling a number of finger receivers to operate if a speech signal or  
data is not contained in the signal received by the antenna and the radio unit, based on whether  
the receiving circuit is in a soft hand-over mode or not;  
means for operating as many finger receivers as a number of base stations which  
are communicating with the receiving circuit if the receiving circuit is in the soft hand-over  
mode, and operating a minimum number of finger receivers required to detect whether or not a  
speech signal or data is contained in the signal received by the antenna and the radio unit, if the  
receiving circuit is not in the soft hand-over mode; and

~~A receiving circuit according to claim 4, further comprising~~ means for controlling  
the number of finger receivers to operate by controlling a supply of a clock signal to said  
plurality of finger receivers.

37.(Amended) A method of receiving data by inversely diffusing a signal received by an antenna  
and a radio unit with a plurality of receivers of a receiving circuit in association with respective  
multiple paths, synthesizing inversely diffused signals, and outputting a synthesized signal,  
comprising the steps of:

controlling a number of receivers to operate, among said plurality of receivers,  
based on whether or not a speech signal or data is contained in the signal received by the antenna  
and the radio unit; and

~~A method according to claim 36, further comprising the step of controlling the~~  
number of receivers to operate if a speech signal or data is not contained in the signal received by  
the antenna and the radio unit, based on a number of base stations which are communicating with  
the receiving circuit.

38.(Amended) A method of receiving data by inversely diffusing a signal received by an antenna  
and a radio unit with a plurality of receivers of a receiving circuit in association with respective  
multiple paths, synthesizing inversely diffused signals, and outputting a synthesized signal,  
comprising the steps of:

controlling a number of receivers to operate, among said plurality of receivers,  
based on whether or not a speech signal or data is contained in the signal received by the antenna  
and the radio unit; and

~~A method according to claim 36, further comprising the step of controlling the~~  
number of receivers to operate if a speech signal or data is not contained in the signal received by  
the antenna and the radio unit, based on whether a receiving circuit is in a soft hand-over mode  
or not.

39.(Amended) A method of receiving data by inversely diffusing a signal received by an antenna  
and a radio unit with a plurality of receivers of a receiving circuit in association with respective  
multiple paths, synthesizing inversely diffused signals, and outputting a synthesized signal,  
comprising the step of:

controlling a number of receivers to operate, among said plurality of receivers,  
based on whether or not a speech signal or data is contained in the signal received by the antenna  
and the radio unit;



controlling the number of receivers to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on whether a receiving circuit is in a soft hand-over mode or not;

~~A method according to claim 38, further comprising the steps of:~~

operating as many finger receivers as a number of base stations which are communicating with the receiving circuit if the receiving circuit is in the soft hand-over mode; and

operating a minimum number of finger receivers required to detect whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit, if the receiving circuit is not in the soft hand-over mode.

40.(Amended) A method of receiving data by inversely diffusing a signal received by an antenna and a radio unit with a plurality of receivers of a receiving circuit in association with respective multiple paths, synthesizing inversely diffused signals, and outputting a synthesized signal, comprising the step of:

controlling a number of receivers to operate, among said plurality of receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit; and

~~A method according to claim 36, further comprising the step of controlling the number of receivers to operate by controlling a supply of a clock signal to said plurality of receivers.~~

41.(Amended) A method of receiving data by inversely diffusing a signal received by an antenna and a radio unit with a plurality of receivers of a receiving circuit in association with respective multiple paths, synthesizing inversely diffused signals, and outputting a synthesized signal, comprising the steps of:

controlling a number of receivers to operate, among said plurality of receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit;

controlling the number of receivers to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on a number of base stations which are communicating with the receiving circuit; and

~~A method according to claim 37, further comprising the step of controlling the number of receivers to operate by controlling a supply of a clock signal to said plurality of receivers.~~

42.(Amended) A method of receiving data by inversely diffusing a signal received by an antenna and a radio unit with a plurality of receivers of a receiving circuit in association with respective multiple paths, synthesizing inversely diffused signals, and outputting a synthesized signal, comprising the steps of:

controlling a number of receivers to operate, among said plurality of receivers, based on whether or not a speech signal or data is contained in the signal received by the antenna and the radio unit;

controlling the number of receivers to operate if a speech signal or data is not contained in the signal received by the antenna and the radio unit, based on whether a receiving circuit is in a soft hand-over mode or not; and

~~A method according to claim 38, further comprising the step of controlling the~~  
number of receivers to operate by controlling a supply of a clock signal to said plurality of  
receivers.

43.(Amended) A method of receiving data by inversely diffusing a signal received by an antenna  
and a radio unit with a plurality of receivers of a receiving circuit in association with respective  
multiple paths, synthesizing inversely diffused signals, and outputting a synthesized signal,  
comprising the steps of:

controlling a number of receivers to operate, among said plurality of receivers,  
based on whether or not a speech signal or data is contained in the signal received by the antenna  
and the radio unit;

controlling the number of receivers to operate if a speech signal or data is not  
contained in the signal received by the antenna and the radio unit, based on whether a receiving  
circuit is in a soft hand-over mode or not;

operating as many finger receivers as a number of base stations which are  
communicating with the receiving circuit if the receiving circuit is in the soft hand-over mode;

operating a minimum number of finger receivers required to detect whether or not  
a speech signal or data is contained in the signal received by the antenna and the radio unit, if the  
receiving circuit is not in the soft hand-over mode; and

~~A method according to claim 39, further comprising the step of controlling the~~  
number of receivers to operate by controlling a supply of a clock signal to said plurality of  
receivers.